

## **A STUDY ON PERFORMANACE ANALYSIS OF SELECTED MUTUAL FUND SCHEMES**

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### **Abstract**

This paper analyzes the performance of open ended equity schemes using daily closing NAV of different schemes to calculate the return of the selected mutual funds schemes. The selected scheme was evaluated on the basis of Sharpe, Treynore, and Jensen measure. The result will be useful for the investor taking better investment. Mutual fund ensures the minimum risk and maximum return to the investors. The objective of this paper is to analyze the return and provide understanding towards better investment decision.

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### **Introduction**

Investment is the very important part of the modern economic world. Mutual fund is one of the most attractive financial investments of in India. Now a day's mutual fund play a vital role in the economy of a country. There are many investments alternatives in India. But mutual fund provides opportunity for the investors. Mutual fund industry was introduce in India 1963 with the formation of the Unit Trust Of India (UTI).many years later in 1987 introduce non UTI mutual fund in India. SBI mutual fund is became a first non UTI mutual fund. Last few years many changes have been seen in the mutual fund industry. The information and awareness is raising more people investing the mutual fund and enjoying the benefits. The need for analyze the performance of mutual fund schemes to see the mutual fund schemes are outperforming or underperforming the benchmark. This paper analyzes the open ended equity schemes of selected mutual funds.

## Review of literature

The present paper deals with the review of literature on analysis the performance of selected mutual fund d schemes

(Dr.R.Narayanasamy, 2013) Analyze the performance of selected equity large cap mutual fund schemes in terms of risk-return relationship. Analyze financial performance of selected mutual fund schemes through the statistical tools. The findings of this research study will be help full to investors for his future investment decisions.

(N.Bhagyasree, 2016)Analyze the performance of open ended growth oriented equity schemes. Daily closing NAV of different schemes have been used to calculate the returns of the mutual funds schemes. The result showed which mutual fund scheme is underperformed and which scheme providing return greater than risk free rate.

(Solanki, 2016)Evaluate the performance of reliance open-ended equity schemes with growth option. The period of study is 1<sup>st</sup>April 2007 to march 2016. To evaluate the schemes monthly returns are compared with benchmark of BSE and SENSEX returns. This paper analysis the scheme is performed well in the reliance mutual fund.

(Dr.G.Brindha, 2014)Mutual fund investment has changed lot of changes last few years. The investor expectation is changing and considers the risk adjusted return they well aware about their investment risk and return. A fund track record is used for evaluates the performance of mutual fund schemes to knew the how valuable investment to the investor. The various statistical tools for used for analyze the performance and guided to the investor for make valuable investment.

(Lohana, 2013) In India the last eight years the mutual fund is growing well. The retail investor fund gathering and investing diversified into securities. The modern investor is aspires to diversify their investment from the savings ,stock market is more challenging one the gain or loss is unpredictable so for some techniques used for evaluates the past track record for the fund and make investor stable income reduces the fluctuation in changes in stock prices.

Mishra [2001] evaluated performance over a period, April 1992 to December 1996. The sample size was 24 public sector sponsored mutual funds. The performance was evaluated in

terms if rate of return, Treynore, Sharpe and Jensen's measures of performance. The study also addressed beta's instability issues. The study concluded dismal performance of PSU mutual funds in India, in general, during the period, 1992-1996.

G. Sethu [2001] used weekly NAV data for 18 open-ended growth schemes in India for the period April 1995-July 1999. His study used three alternatives indices for equity market viz. NSE Nifty, BSE Sensitive Index and S&P CNX 500. The 91-day treasury auction rate was used as the risk free rate. He concluded that the fund portfolios are not adequately diversified; the excess returns after adjusting for systematic risk is zero and the portfolios do not show any market timing.

Barua and Verma (1991) provided empirical evidence of equity mutual fund performance in India. They studied the investment performance of India's first 7year close-end equity mutual fund, Master share. They found that the fund performed satisfactory for large investor in terms of rate of return. Impolite (1992) expressed that fund/scheme selection by investors is based on past performance of the funds and money flows into winning funds more rapidly than they flow out of losing funds.

Sarkar and Majumdar (1995) evaluated financial performance of five close ended growth funds for the period February 1991 to August 1993, concluded that the performance was below average in terms of alpha values (all negative and statistically not significant) and funds possessed high risk.

Jaydev (1996) evaluated performance of two schemes during the period, June 1992 to March 1994 in terms of returns / benchmark comparison, diversification, selectivity and market timing skills. He concluded that the schemes failed to perform better than the market portfolio (ET's ordinary share price index). Gupta and Sehgal (1997) evaluated mutual fund performance over a four year period, 1992-96. The sample consisted of 80 mutual fund schemes. They concluded that mutual fund industry performed well during the period of study. The performance was evaluated in terms of benchmark comparison, performance from one period to the next and their risk-return characteristics.

## **Mutual fund**

Mutual fund is the collective investments that pools money from many investors. The collections of money invest in stocks, short- term money market instrument, and other securities. Value of the mutual fund known as net asset value (NAV). This calculates based on total value of the fund divided by the number of shares currently issued.

**The securities and exchange board of India (mutual funds) regulation 1993** defines mutual fund as “a fund established in the form of a trust by a sponsor to raise moneys by the trustees through the sale of units to the public under one or more schemes for investing in securities in accordance with these regulation”.

### Objective of the study

1. To study the performance of mutual fund schemes.
2. To analyze the risk return relationship of the selected mutual fund schemes.
3. To identify the best return in the mutual fund schemes.

### Research methodology

To analyze the performance of 20 schemes were selected at random basis. Daily closing NAV of different schemes have been used in this study for the period of five years. This study mainly secondary data based. Data regarding NAV were obtained from the website of [www.mutualfundindia.com](http://www.mutualfundindia.com), [www.amfiindia.com](http://www.amfiindia.com), [www.sbimf.com](http://www.sbimf.com) and [www.hdfcfund.com](http://www.hdfcfund.com).

### Performance analysis tools for mutual fund

- Sharpe ratio
- Treynore ratio
- Jensen ratio

### Sharpe ratio

The Sharpe ratio was developed by **William F. Sharpe**. The Sharpe ratio is measure for calculating risk adjusted return. This ratio has become the industry standard for such calculation.

$$\text{Sharpe ratio} = \frac{\text{portfolio Average Return (Rp)} - \text{Risk Free Rate of Return (RF)}}{\text{Risk}}$$

### Standard Deviation of the portfolio Return

#### Treynore ratio

The Treynore ratio was developed by **Jack Treynore**. It's extended the work of William Sharpe by formulating Treynore ratio. It measure the returns earned in excess of that which could have been earned on investment that has no diversifiable risk.

$$\text{Treynore Index} = \frac{\text{Portfolio Average Return (Rp)} - \text{Risk Free Rate of Return (RF)}}{\text{Beta Coefficient of portfolio}}$$

Beta Coefficient of portfolio

#### Jensen ratio

Jensen ratio was first used to measure in the evaluation of mutual fund by **Michael Jensen**. It measures the risk-adjusted performance of a security or portfolio in relation to the expected market return.

$$\text{Alpha (a)} = (R_x - R_F) - B (R_m - R_F)$$

S.NO	SCHEMES	RETURN	RISK	BETA
1	SBI BLUE SHIP FUND	0.5102	0.0425	0.5949
2	SBI CONTRA FUND	0.2942	0.0245	0.4426
3	SBI MAGNUM EQUITY FUND	0.1673	0.0139	0.3265
4	SBI INFRASTRUCTURE FUND	0.8531	0.0710	0.7027
5	SBI PHARMA FUND	1.1033	0.0919	0.9619
6	SBI PSU FUND	0.5213	0.0434	0.5925
7	SBI MAGNUM MULTICAP FUND	0.8091	0.0674	0.6851
8	HDFC GROWTH FUND	0.8426	0.0702	0.6875
9	HDFC SMALL CAP FUND	0.6573	0.0547	0.6354
10	HDFC INDEX FUND	0.1378	0.0114	0.2600
11	HDFC INFRASTRUCTURE FUND	0.9092	0.0757	0.6916

12	HDFC ARBITRAGE FUND	0.3308	0.0275	0.4477
13	HDFC EQUITY SAVINGS FUND	0.7240	0.0603	0.6285
14	AXIS EQUITY SAVER FUND	0.0443	0.0036	0.0869
15	AXIS EQUITY FUND	0.2067	0.0172	0.3275
16	AXIS LONG TERM EQUITY FUND	1.1805	0.0983	0.7397
17	AXIS MID CAP FUND	1.0430	0.0869	0.7251
18	AXIS INCOME FUND	0.5960	0.0496	0.6470
19	AXIS SHORTTERM FUND	0.7700	0.0641	0.6283
20	AXIS INCOME SAVER FUND	0.1219	0.0101	0.2075

### Inference

The table –I represents the result of return, risk, Beta of selected schemes. It shows the competency of these schemes to make the strong case for investment. The maximum return was from the Axis long term equity fund (1.1805) and minimum return was Axis equity saver fund (0.0443).

S.NO	SCHEMES	SHARPE	TREYNOR	JENSEN
1	SBI BLUE SHIP FUND	1.4452	0.7861	0.9384
2	SBI CONTRA FUND	0.8125	0.6094	0.5361
3	SBI MAGNUM EQUITY FUND	0.4583	0.4696	0.3127
4	SBI INFRASTRUCTURE FUND	2.3800	1.1128	1.5624
5	SBI PHARMA FUND	3.0164	1.0514	2.3067
6	SBI PSU FUND	1.4693	0.8064	0.9538
7	SBI MAGNUM MULTICAP FUND	2.2009	1.0825	1.4808
8	HDFC GROWTH FUND	2.2326	1.1234	1.5412
9	HDFC SMALL CAP FUND	1.7046	0.9482	1.2099
10	HDFC INDEX FUND	0.3418	0.4858	0.2552
11	HDFC INFRASTRUCTURE FUND	2.2753	1.2050	1.6632



12	HDFC ARBITRAGE FUND	0.8127	0.6773	0.6062
13	HDFC EQUITY SAVINGS FUND	1.7011	1.0558	1.3260
14	AXIS EQUITY SAVER FUND	0.0972	0.4671	0.0804
15	AXIS EQUITY FUND	0.4797	0.5785	0.3810
16	AXIS LONG TERM EQUITY FUND	2.8435	1.4629	2.1641
17	AXIS MID CAP FUND	2.6948	1.3184	1.9068
18	AXIS INCOME FUND	1.7770	0.8444	1.0988
19	AXIS SHORTTERM FUND	1.6803	1.1234	1.4133
20	AXIS INCOME SAVER FUND	0.2661	0.5387	0.2222

### Inference

Table –II represents the result of Sharpe, Treynor, and Jensen ratios. It is observed from higher positive value of Sharpe ratio found in SBI pharma fund (3.0164). In this study the Sharpe ratio is positive value for all schemes. Top performer of Treynor ratio is axis long term equity fund (1.4629). Top performer of Jensen ratio is SBI pharma fund (2.3067).

### Conclusion

This paper analyze the performance of 20 selected open ended schemes for the period of 1 April 2012 to march 2017 five years. Daily closing NAV used to calculate the performance of selected schemes. The schemes were analyzed on the basis of Sharpe, Treynore, and Jensen ratio. The result will be useful for the investors taking better investment decisions. In this study the Sharpe ratio was positive for all schemes which showed the greater than risk free rate.

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